

JOB DESCRIPTION
MURFREESBORO WATER AND SEWER DEPARTMENT
EQUIPMENT OPERATOR - BACKHOE

1. JOB TITLE: EQUIPMENT OPERATOR-BACKHOE

2. DEFINITION: This position requires technical and manual skills as well as heavy manual labor in the operation of construction equipment. The Equipment Operator reports to the Superintendent of Operation and Maintenance. All employees are responsible to the Director and City Manager. The position is classified as non-exempt for the purpose of the Fair Labor Standards Act, as having an occupational exposure to bloodborne pathogens, and as Safety Sensitive; the employee is subject to pre-employment, reasonable suspicion, post accident, random, promotion and transfer, return to duty and follow-up drug and alcohol testing. The employee is subject to a pre-employment physical examination with a written statement from the physician as to the employee's ability to meet the physical strength and dexterity requirements of the position.

3. EQUIPMENT / JOB LOCATION:

- a. This employee will operate backhoes, rubber tired loaders and other equipment used in construction.
- b. The job location is throughout the potable water distribution, repurified water distribution and wastewater collection systems. The employee will work primarily outdoors and may be exposed to inclement weather and in the proximity of biological, chemical, electrical and mechanical hazards. All City facilities and vehicles are smoke-free locations.

4. ESSENTIAL FUNCTIONS OF THE JOB:

- a. Operates backhoes, rubber tired loaders and other equipment used in construction, maintenance and/or repair of the potable water and repurified water distribution systems and wastewater collection system.
- b. Excavates in close proximity, above, underneath and beside existing utilities and infrastructure without causing damage.
- c. Performs slope excavations and understands line standards required by OSHA for employee entry into trenches.
- d. Interprets markings of utilities as color coded according to Tennessee One Call. Performs tasks that require color perception.
- e. Performs job duties while wearing appropriate safety equipment such as air mask, steel toed shoes, rain gear, hard hats, goggles, etc.
- f. Operates various hand tools, including but not limited to jackhammers, pavement breakers, picks, shovels and various wrenches.
- g. Operates various equipment, including but not limited to air compressors, rodding machines, boring machines and various type pumps.
- h. Sets up safety traffic controls around active work area.
- i. Sits, stands, lifts, stoops and walks intermittently.
- j. Participates in standby duties which involves working alone or with a co-worker at night and on weekends to resolve emergency and after hour calls.
- k. Maintains a clean and orderly work environment.
- l. Must be able to perform job duties as described on essential functions addendum.

5. ADDITIONAL EXAMPLES OF WORK TO BE PERFORMED:

Performs other duties and special projects as assigned.

6. REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

- a. Must be a minimum of 21 years of age.
- b. Must possess a diploma or GED from an accredited high school.
- c. Must have legal authorization to work in the United States.
- d. Must consent to and pass a pre-employment drug screening.
- e. Possess a driver's license valid in the state of Tennessee with the ability to safely operate an automobile.
- f. Ability to learn and be certified in CPR and first aid.
- g. Three years experience in the field of wastewater collection/sewage systems and or potable water distribution systems is preferred.
- h. Must be able to comprehend both oral and written instructions and to communicate in English, both orally and in writing.
- i. Ability to report to work on time and perform the duties of the position for an entire shift for the entire workweek and to perform occasional overtime. May be required to work evening, night, weekend, holiday and/or standby shifts.
- j. Ability to operate various hand tools such as jackhammers, pavement breakers, picks, shovels, wrenches, etc.
- k. Ability to operate various equipment such as air compressors, rodding machines, and various types of pumps, etc.
- l. Ability to work while wearing personal protective equipment, steel-toed shoes, rain gear, hard hats, goggles, etc.
- m. Ability to learn and comply with safety rules and to respond correctly to biological, chemical, electrical and mechanical hazards, asphyxiating, toxic and explosive gases, and vapors.
- n. Ability to read and comprehend drawings, plans and maps.
- o. Ability to perform tasks with minimum of supervision.
- p. Ability to establish and maintain effective working relationships with supervisors, co-workers and the public.
- q. Physical strength and dexterity requirements including the ability to:
 1. Climb in and out of equipment cabs.
 2. Manipulate both large and small hand tools.
- r. Ability to constantly bend, squat, kneel, twist, push and pull.
- s. Ability to lift and carry objects, tools and equipment weighing 100 pounds.
- t. The employee shall be subject to a pre-employment physical examination with written statement from the physician as to the employee's ability to meet the physical strength and dexterity requirements of the position as defined on the attached Essential Functions Addendum.

Non Exempt
Safety Sensitive
August 31, 2006

ESSENTIAL FUNCTIONS ADDENDUM
MURFREESBORO WATER AND SEWER DEPARTMENT
EQUIPMENT OPERATOR

Employees in this area work 5 days a week, 8 hours a day with a 1-hour lunch break. The Equipment Operator reports to the Line Construction Coordinator or to the Field Operations Superintendent. This position requires technical and manual skills as well as heavy manual labor in the operation of construction equipment. This job requires, in addition to equipment operation, some digging, lifting and breaking of pavement under varying weather conditions while exposed to dampness, fumes, odors, dust, biological, electrical and mechanical traffic hazards.

Physical Demands

Rarely – suggests the employee is required to perform tasks less than 8 repetitions per hour, or less than 33% of the day.

Occasional – suggests the employee is required to perform tasks 8-15 repetitions per hour, or 33% of the workday.

Frequent – suggests the employee is required to perform tasks 16-32 repetitions per hour, or 34-65% of the workday.

Constant – suggests the employee is required to perform tasks 33 or more repetitions per hour, or 66% or higher of a workday.

<u>Lift</u>	<u>Occasional</u>	<u>Frequent</u>	<u>Constant</u>
<20#			X
20-50#		X	
50-75#		X	
75-100#	X		
>100#	X		
Push/Pull			
<50#			X
50-100#		X	
100-150#	X		
>150#	X		

Depending on the job duties for the day the operator may have to perform lifting, pushing or pulling on a more or less frequent basis. However, job duties may change throughout the week depending on the needs of the Water and Sewer Department.

Employees are able to get help with lifting heavy objects and are encouraged to if an object weighs over 100#.

Bending/Squatting/Kneeling/Twisting – Is required constantly throughout the day repairing and constructing water collection systems. The operator also works in confined spaces, which requires the employee to work in very tight conditions.

Pushing/Pulling – Is required constantly while working on a job that requires the manipulation of rods, pipes or wiring. Is required occasionally manipulating valves, fire hydrants, manhole covers, copper rolls, and other material used in the repairing and constructing of water collection systems.

Lifting/Carrying – Is required constantly in lifting hand tools. Performed occasionally lifting valves, rods, pipes, wiring, jackhammers, pavement breakers, shovels, wrenches, spider lids, copper rolls, and other material used in the repairing and constructing of water collection systems. The following items were weighed and can be lifted, carried, pushed, pulled or manipulated in a fashion using all 4 components:

<u>Item</u>	<u>Weight</u>
Spider lid	160#
Manhole cover	90-145#
PVC pipe (13 ½ feet)	62#
Fire hydrant	400# (handled with electrically driven hoists or fork lifts)
One inch copper tubing (100 feet)	85#
6 inch gate water valve	145#
Tapping sleeve	145#
Water pump	120#
Reducer	25#
Jack hammer	
(6 foot steel rod)	100#
Pavement breaker	80#
Cut off saw	32#
TV camera	48#

The jack hammer and pavement breaker were weighed as above, however, this does not account for friction force that is caused when breaking up pavement or when it may jam in the pavement.

Standing/Walking – Is required constantly throughout the day.

Sitting – Is performed while driving to the location for the job, or on breaks.

Reaching – Is required constantly manipulating hand tools, valves, pipes, rods, and using other materials used in the repairing or constructing of the water collection systems.

Manual Dexterity/Gripping – Performed constantly.

Fine Motor Control – Is required frequently while screwing valves or using small hand tools.

Climbing ladders – Required frequently ascending/descending ladders in manholes that can be up to 25 feet deep.

Overhead activity – Required occasionally when lifting items overhead such as a jackhammer, piping, and wiring.

Tools Handled:

Shovel
Jack hammers
Pipe saw
Tapping machine
Spade
Pipe Wrench
Pavement breaker
Rock drill
Road saw
Air ratchet
Hand ratchet
Hammer
Wrenches
Rake
Pipe cutters
Screw Driver
Chain
Sewer rope
Manhole hook
Probing Rod
Metal detector
Tape measure
Sledge hammer

Work Conditions

Exposed to:

Hot temperatures
Cold temperatures
Sudden changes in temperatures
Noise
Slippery Surfaces
Tight work spaces
High elevations
Rain
Snow

Need physical ability for:

Squatting
Bending/Crouching
Stooping
Hand gripping
Fine motor control

Hand/Eye coordination
Pushing/Pulling
Lifting/Carrying
Reaching
Overhead activity
Climbing
Balancing
Foot control
Driving a truck
Driving heavy equipment
Driving a tow motor

Addendum
August 18, 2005